



NEWSFILE

291

IM SERVICES TO
BE COMPATIBLE

292

BLU-RAY NEXT
DVD FORMAT

293

APPLE HOARDS
MEMORY

294

IS YOUR
PRINTER A SPY?

Video no reason to buy video-enabled iPod

Apple has released an iPod that plays video, and launched a video download service from the iTunes Music Store. The move could herald the long-awaited arrival of internet TV – or not, if Apple CEO Steve Jobs is to be believed.

He has been scathingly dismissive of the idea that people want to watch movies or TV on handheld players. Indeed, Jobs is known to be hostile to television, regarding it as a "brain dead" medium. Feeble sales of Portable Media Center devices, a Microsoft specification offered by hardware companies such as Samsung and Creative since 2004, seem to have proved him right.

A major problem has been the lack of compelling content. Even during Apple's high-profile launch of video downloads, Jobs did not have a great deal to offer.

Apple announced a deal with Disney to provide downloads of five popular US TV shows for \$1.99 (around £1.13) each, available the day after they broadcast. However the deal is for US iTunes Music Store customers only. On top of that, more than 2,000 music videos are also available to download for £1.89 each, as well as six short films from Pixar.

This is a far cry from the library of 200,000 songs from all five of the world's big record companies that Apple offered for the 2003 launch of the iTunes Music Store. Jobs acknowledged as

much. "Sometimes the first step is the hardest. This is the start of something big," he said. Most industry insiders confirmed his assessment.

No sooner had Apple announced its deal with Disney and ABC television than reports appeared in the US financial press of rival broadcasters, as well as Hollywood, feverishly initiating talks with Apple executives. With analysts describing Apple's deal as some kind of tipping point for a repeat of the iTunes revolution for music downloads, no-one wants to get left behind.

Even the record companies, many of which are annoyed with Apple for its domination of digital music, will be rubbing their hands at the prospects of actually selling music videos for £1.89 after years of giving them away as free promotional devices.

Apple's marketing of the video-enabled iPod was astute. Rather than introduce a new, more expensive category of iPod, as it did with the now abandoned iPod photo, Apple added the ability to play back video to the current iPod. This remains the same price, though with a much bigger hard disk and a larger, higher-resolution colour screen.

"The new 30GB iPod is the best music player ever. It's 30 per cent thinner and has 50 per cent more storage than its predecessor, yet it sells for the same price and plays stunning video on its 2½" colour screen," said Jobs. He described the ability to



play back video, either on the iPod's colour screen or on a TV (thanks to a new video out connector) as "a bonus" rather than the key selling point.

"Because millions of people around the world will buy it to play music, it will become the most popular portable video player in history," he said.

Apple is not the first company to offer handheld video players or to sell video content over the internet. But with its record as the company that made legal music downloads popular through its iTunes Music Store, Apple's announcement was widely greeted by industry watchers as the start of mainstream downloading of video content. Even if Apple itself doesn't think so.

eBay predicts free phone calls for all

The Voice over IP (VoIP) revolution, where people make phone calls over the internet, will introduce universal free telephony in just a few years, according to eBay. The company recently invested \$4 billion (around £2.3bn) in VoIP trailblazer Skype, which brought with it 57 million users.

In a conference call with analysts, eBay's CEO Meg Whitman said, "the percentage of users that you can actually charge for phone calls will

go down. In the end, the price that anyone can provide for voice transmission on the net will trend toward zero."

Whitman was asked how eBay expected to make any money in telephony, when the main attraction of VoIP is that it is free once you've paid flat-rate broadband access charges. Whitman said she expects carriers to make money by advertising, possibly in the form of short messages that precede

phone calls, and by taking a cut of transactions made over the phone. Whitman believes that eBay and its PayPal subsidiary are perfectly placed to cash in on such a model.

Most telephone companies are bracing themselves for the new age of VoIP. BT, for example, is placing most of its investment in broadband, with the tacit acknowledgement that VoIP uptake will increase and cannibalise its core telephone business.



MSN and Yahoo! get together

Microsoft and Yahoo! have agreed to allow all users of their currently incompatible instant messaging (IM) services to communicate directly with each other. Until now the two systems offered only limited compatibility to corporate customers. In June 2006 the two companies will make it possible for all users to exchange text messages, hold voice conversations, share some emoticons and add contacts from either service to their own contacts.

"This is one of those situations where one plus one can equal three," said Blake Irving, corporate VP of MSN. "We're excited to announce plans for something that we know for a fact will delight our users."

The groundbreaking move is a response to pressure from AOL, whose AIM and ICQ messaging services account for around 56 per cent of the IM market, according to market research company the Radicati Group. According to US market watcher comScore Media Matrix, AOL has gained market share at the expense of Yahoo! and MSN.

"Both MSN and Yahoo!'s IM are on the outs. AOL dominates

that market," said Richard Williams, an analyst at Garban Institutional Equities. He believes that Microsoft wants to buy AOL and create a single, giant, unified IM network.

"If you leave the boundaries of the US, it's MSN and Yahoo!. You don't find a lot of AOL," he said.

The deal between Yahoo! and MSN is also designed to head off the threat from Google Talk, which launched last September. Although Google still has less than one per cent of the IM market, the firm's increasing power terrifies its competitors.

MSN and Yahoo! will also make their associated VoIP services compatible, in a move that recognises the increasing threat from Skype, which was recently acquired by internet giant eBay (see opposite). IM is increasingly used as a platform for VoIP telephony.

Yahoo!'s CEO Terry Semel characterised his company's agreement with Microsoft as a "turning point for the IM industry", which has been bedevilled by the incompatibility between the various IM services. To remedy this, third-party IM clients such as Trillian make

it possible to exchange messages across networks, but this still requires you to set up a separate account with each IM service.

Industry insiders said that Microsoft had also approached AOL shortly before the announcement in a failed attempt to persuade AOL to join the initiative. With the leading position in the IM market, AOL has repeatedly rebuffed Microsoft's attempts to interconnect with its networks, which it believes could undermine its advantage of having the largest volume of users. Only Apple's iChat and Reuters' messaging service have been permitted to connect into AOL's AIM network.

All IM network operators are searching for a way of making money from a service that has generally been free of charge, and clearly there is an advantage in being the biggest network.

IM is currently one of the tools so-called web portals offer to attract people to their sites, which in turn generates advertising revenues. In the longer term, analysts believe that premium, paid-for IM services will be marketed to consumers as they are to corporations.

Microsoft makes peace with Real

Microsoft has agreed to pay RealNetworks \$460 million (around £261m) and spend \$301 million (around £171m) to help promote Real's Rhapsody music download service. The move ends a bitter anti-trust lawsuit and launches a joint attack on Apple's all-conquering iTunes Music Store. "We're ending one chapter and opening a new one in our relationship with Microsoft," said RealNetworks' CEO Rob Glaser, who until recently was one of Microsoft's most implacable foes.

Since Apple swept aside all competition to dominate the music downloads market, Microsoft and RealNetworks' dispute became increasingly irrelevant as the two companies contemplated their position as also-rans in an important consumer market.

In 1998 RealNetworks appeared before the US Congress and testified that Microsoft had deliberately engineered Windows to sabotage Real's streaming media player. Apple also testified to similar Microsoft dirty tricks during Redmond's tortuous anti-trust trial in the US.

Real also filed two lawsuits against Microsoft in December 2003, alleging that the software giant unlawfully used its Windows monopoly to pressure PC vendors into not offering a default installation of RealPlayer on new computers. Real was also the last remaining major competitor to Microsoft that was prepared to testify in similar anti-trust hearings in the EU, which resulted in Microsoft being fined \$612 million (around £347m).

For Microsoft, the out-of-court settlement represents another major milestone in its strategy to settle all its outstanding corporate litigation and reposition itself as a partner rather than a predator. The deal also explains Microsoft's recent decision to abandon plans to set up its own music subscription service. Instead, it has agreed to market Real's Rhapsody for the next 18 months by positioning it prominently in its MSN service. Using MSN Search for a song will result in a link to Rhapsody.

Rhapsody may be the leading music subscription service, but it has strong competition from Yahoo! and Napster. However, the subscription business as a whole is miniscule compared with iTunes. The Microsoft deal is a chance to build Rhapsody into a sustainable business.

NEWS

BRIEF

ROMANIAN EBAY SCAMMERS JAILED

Three Romanian fraudsters, who made at least £300,000 by listing bogus auctions on eBay, were jailed in October. The three set up an electronic scam ring, involving crime bosses in Romania, and are thought to have duped 3,000 victims around the world. Nicolae Cretanu, 30, was sentenced to three-and-a-half years of imprisonment by Judge Duncan Matheson at Middlesex Guildhall Crown Court. Cretanu's wife, Adriana, and their accomplice, George Titar, received 30 months each.

The three were found guilty of listing fictitious goods on the auction website. Anybody who made a bid on an item was informed at the end of the auction that their offer had been unsuccessful and were then given a second chance to purchase similar items on a one-to-one basis. Bidders were asked to transfer money to a number of different aliases through Western Union money transfer outlets in London.

MICROSOFT DIGS UP ZOMBIE NETWORK HORROR

Microsoft claims to have intentionally set up a zombie computer, stuck it online for three weeks and watched what happened. Although the computer was configured so that it wouldn't actually send out any spam itself, it was quickly identified as a new recruit to the zombie networks and enlisted for spamming duties.

Researchers noted five million requests for connections to the system over the period, as well as attempts to send 18 million spam messages carrying advertising for 13,000 websites.

LINKSYS WIRELESS PHONES

Linksys has announced a wireless handset that enables users to chat at a distance from their PCs. The CIT200 has a colour screen that can list Skype contacts, and can also make calls to fixed and mobile lines thanks to the SkypeOut service. The phone costs around £75.



NEWS

BRIEF

■ SAMSUNG TO PAY \$300M PRICE FIX FINE

Korean electronics giant Samsung has agreed to pay a \$300 million fine for its part in a cartel to fix DRAM prices. The fine is the second largest in US history.

Samsung pleaded guilty to the charge that between 1st April 1999 and 15th June 2002, Samsung and its US subsidiary Samsung Semiconductor conspired with other DRAM makers to fix prices.

The charges alleged that Samsung, together with German manufacturer Infineon and Korea's Hynix, agreed to set DRAM prices at certain levels for certain customers. The three issued price quotations in line with their agreement and swapped sales data about those customers so each could monitor and enforce the set prices.

■ ANTI-TRUST JUDGE SCOLDS MICROSOFT

The US judge overseeing Microsoft's ongoing compliance with the anti-trust settlement she approved in 2002 has criticised the firm for breaching the terms of the agreement.

District Judge Colleen Kollar-Kotelly demanded an explanation after Microsoft tried to force portable music player makers to tie their devices to its Windows Media software. "This should not be happening," she said in what the Associated Press described as a "rare display of indignation".

Microsoft dropped the proposals as soon as they became public.

■ IBM SHOWS OFF XBOX 360 CHIP

IBM talked up its Xbox 360 chips at the In-Stat Fall Processor Forum in San Jose, California in the run up to the launch of the next-generation console. It said the chip comprises three 64-bit PowerPC cores running at 3.2GHz and sharing a 1MB Level 2 cache. That harnesses a new front-side bus with 5.4Gbit/s throughput per pin, making a massive total bandwidth of 21.6Gbit/s. The chip can run two threads simultaneously, supporting the high bandwidths and low latency requirements needed for high-performance gaming.

Blu-ray predicted to succeed DVD

Sony's Blu-ray technology looks certain to emerge as the next-generation successor to today's DVD format, despite industry heavyweights Microsoft and Intel recently throwing their weight behind the rival HD-DVD format developed by Toshiba. Microsoft chairman Bill Gates complained that Blu-ray would be inconvenient and "anti-consumer".

Be that as it may, a report by Forrester Research analyst Ted Schadler is confident that Blu-ray will win. Schadler believes that Hollywood's wishes carry more weight than the combined will of Microsoft and Intel. "Two groups are competing for control of high-definition DVD formats to be launched in the spring of 2006," says the report. "After a long and tedious run-up to launch, it is now clear to Forrester that the Sony-led Blu-Ray format will win."

Schadler said that until now the top six film studios had been split evenly, with three supporting each format. Then, in October 2005, HD-DVD supporter Paramount

Home Entertainment announced that it would sell digital movies in both formats. Warner Brothers quickly followed Paramount's example, meaning that five out of six studios now support Blu-ray or both formats.

Schadler said that Sony had learned from the traumatic failure of its Betamax standard to the inferior VHS video-cassette format in the 1980s. With Blu-ray it put together an "impregnable line-up of partners". Sony's PlayStation 3 will also come with a Blu-ray disc drive, automatically creating an enormous momentum for the standard.

All the most significant computer vendors, including Dell, HP, Apple and Samsung, have come out in support of Blu-ray, making Microsoft and Intel's position somewhat anomalous. The forthcoming format battle may be an attempt by computer vendors to stop being bossed around by Microsoft and Intel when it comes to setting future standards in the PC market.

Bill Gates claimed that Hollywood's enthusiasm for Blu-ray

was nothing to do with the inherent superiority of the technology and was all about digital rights management. "The protection scheme under Blu-ray is very anti-consumer. The inconvenience is that the studios got too much protection at the expense of consumers and it won't work well on PCs. You won't be able to play movies and do software in a flexible way," he told *The Daily Princetonian*.

Schadler believes the failure to agree on a compromise specification will ultimately harm both camps. The title of his report, *Blu-ray Will Win A Pyrrhic Victory Over HD-DVD: Annoyance, Apathy, And Alternatives Will Keep Consumers Away*, says it all.

Despite his protestations, Gates hinted that Microsoft would not be particularly upset if a standards battle were to undermine either Blu-ray or HD-DVD. "For us it's not the physical format. Understand that this is the last physical format there will ever be. Everything's going to be streamed directly or on a hard disk. So, in this way, it's even unclear how much this one counts," he said.

Google and Sun threaten Microsoft Office

Google's long-anticipated move to offer a complete, web-based alternative to Microsoft Office for free took a step forward when the search giant announced a strategic alliance with Sun.

Sun has long been touting its OpenOffice productivity suite as a cheap alternative to Microsoft Office, but so far with relatively little success. Now Google has agreed to help develop future versions of the product, which could evolve into an extension of the popular Google Toolbar. In return, Sun has agreed to include Google Toolbar as an option for consumers downloading the Java Runtime Environment.

Google, which is a major user of Java, said it would also help

Sun develop its popular cross-platform technology. "We are both interested in pushing the concept of software as a service and giving customers information access as a service rather than under a licensed, CPU-type model," said Sun's VP for software, John Loiacono.

The prospect of a free or very cheap alternative to Microsoft Office running on any platform and backed by Google is a serious threat to Microsoft, which makes the vast majority of its revenues selling Windows and Office. With OpenOffice, Google will be able to offer a complete system of online services, ranging from search, email, instant messaging, mapping and productivity applications, without

customers having to leave the Google environment. "What you've actually got going here between Google and Sun is their own personal version of the film *Kill Bill*," said David Garrity, director of research for Investec.

Bill Gates has faced this sort of challenge before. In the mid-1990s Netscape tried to expand its web browser into a platform alternative to Windows and Office. Gates ordered Microsoft to focus on the internet and the company ruthlessly killed off Netscape. However, a joint Google and Sun initiative could be much harder to see off, especially as Microsoft's behaviour is now monitored much more closely following its anti-trust trials.



iPod competition starved of memory

Apple's audacious bid to seal the iPod's domination of the music player market has devastated rival music player vendors. Apple locked up the market for NAND flash memory, while forcing down prices of USB flash drives and memory cards. In August Apple agreed to buy 40 per cent of Samsung Electronics' output of NAND flash memory to use in its iPod nano range, according to market research company iSuppli.

Industry watchers say Apple has secured a 30 to 40 per cent discount for the memory chips, which has not only helped it cut costs but has also raised the price of NAND memory for its competitors as supplies run out. Flash memory accounts for up to half the price of a music player and Samsung supplies around 60 per cent of the world's flash memory.

In 2005, 200 small, Asian-based makers of MP3 players went bust because they couldn't get vital components such as flash memory, according to iSuppli. This accounted for around half the global music player industry. Rio, the firm that pioneered memory-based music players, has gone out of business, while Creative Labs, Apple's most aggressive competitor, lost \$31.9 million (£18m) in its June 2005 quarter, and is believed to be seeking funding to stay in the market.



The iPod nano has also forced down prices of USB flash drives and memory cards, as it works as a portable storage device. Apple sold one million nanos in the first 17 days of its launch. "A 4GB flash drive isn't stylish and trendy, and you can't use it to play music," said Gartner analyst Joe Unsworth.

For Samsung, "Sewing up the marquee iPod memory business is well worth the reduction in margins," according to iSuppli analyst Nam Hyung Kim. Kim warned that remaining vendors should strike similar deals rather than buying up memory on a volatile spot market.

However, Apple has abandoned plans to lock in supplies by making a joint \$3.8 billion (around £2.1bn) investment in flash memory with Samsung Electronics. Samsung

blamed the Korean Fair Trade Commission (FTC). In October FTC chairman Kang Chul-kyu warned that he "could take action" against the allegedly unfair deal between Samsung and Apple if Korean music player vendors complained. Several vendors claim Apple was able to make the iPod nano so cheap only because Samsung sold it memory at below cost. "We have profited about 30 per cent on memory sales, and such a high profit rate would be impossible if we were selling chips at half price," said a Samsung spokesman.

But according to an unnamed Korean government official, quoted in the *Korea Economic Daily*, "Anti-Samsung sentiment has deepened among some political and civic groups, and Apple ended the talks, complaining about it."

BlackBerry in your Palm

New Palm smartphones will contain the same software used in the popular BlackBerry communications devices, giving users easy access to email and desktop calendars. Starting with the Treo 650, Palm's smartphones will use the software from RIM's popular BlackBerry handhelds following an alliance between the two companies.

The deal, which comes after 18 months of negotiations, also gives Palm users access to RIM's infrastructure, enabling them to receive emails as seamlessly as someone on a networked PC.

The deal follows Palm's recent decision to license Microsoft's

Windows Mobile 5.0 with its smartphone range later this year. Both deals put a question mark over the future of the Palm OS, which has always been installed on Palm handhelds. Since PDA pioneer Palm sold its operating system division Palm Source, there has been nothing to stop Palm, the hardware division previously known as PalmOne, using a different operating system. Similarly, Palm is free to license its operating system to Palm's hardware competitors.

Both Palm deals are intended to help the company sell more hardware to business customers, who have increasingly settled on

both the Windows Mobile and RIM BlackBerry platforms.

Palm's director of wireless marketing, Joe Fabris, said the RIM deal should enable it to sell to over 50,000 companies and organisations that use RIM software on their servers to distribute mobile email.

RIM makes 75 per cent of its revenues from sales of BlackBerry handhelds, but the firm hopes that licensing its software to erstwhile rivals will more than compensate for increased competition. RIM has also licensed its software to Nokia, which intends to introduce a new generation of BlackBerry-compatible smartphones very soon.

NEWS

BRIEF

■ BITTORRENT UPLOADER CONVICTED

The world's first conviction for copyright infringement over BitTorrent file-sharing networks was passed in October 2005. Thirty-eight-year-old Chan Nai-ming from Hong Kong was convicted of copyright infringement after uploading three blockbuster movies to BitTorrent networks.

According to the *China Post* he denied the charge, although it seemed an ill-boded defence considering his username on the service was Big Crook.

He was arrested in January 2005. Customs officials said they were delighted at the outcome and that the precedent-setting case had sparked a sharp decline in the use of BitTorrent. He was awaiting sentencing at the time of going to press.

■ DISNEY TO ENCRYPT OSCAR PREVIEWS

Disney is turning to heavy copy protection to stop Oscar judges selling DVDs of forthcoming movie blockbusters to bootleggers. Walt Disney Studios will use encryption technology from Cinea, a subsidiary of Dolby Laboratories, for 2005 DVD Awards screeners.

Screeners are limited-edition copies of films that are supposed to be viewed only by the judges, enabling them to decide the awards winners from the comfort of their homes. To prevent unauthorised leakage of the films, the Cinea system encrypts each disc with a code that's unique to each judge. The disc delivered to each judge will play only on the Cinea S-VIEW DVD player registered to them.

■ WIKIPEDIA TO GO OFFLINE

The founder of Wikipedia is considering whether or not to make content from the online encyclopedia available in print and on CDs and DVDs.

Jimmy Wales explained that by making Wikipedia available off the web, he would be able to provide access to the information to millions of people worldwide who do not have a computer.



NEWS

BRIEF

■ CREDIT CARD COMPANIES PLAN MOBILE TRANSACTIONS

Japanese credit card companies have formed an association to create a standard for making transactions via a mobile phone.

The companies, including the Japanese arm of Vodafone, intend to create a new system dubbed QUICPay. Users of popular credit cards, including MasterCard Japan, could use their phones to pay for goods at any retail outlet fitted with a QUICPay scanner.

The mobile transaction alliance hopes these electronic wallets will eventually replace cash, credit cards, identification cards and electronic plane or train tickets with a single device.

■ ROBO RACERS FINISH DARPA CHALLENGE

Five 'autonomous' ground vehicles successfully completed the 2005 Defense Advanced Research Projects Agency (DARPA) Grand Challenge.

Intel-backed Ivy-leaguers from Stanford University scooped the \$2 million (around £1.1m) prize with their robotic vehicle Stanley, the visual processing for which was powered by a Pentium M processor. Stanley took six hours and 53 minutes to do the challenge, for which there was a 10-hour limit. It was followed by two of Carnegie-Mellon University's vehicles: Sandstorm, which took seven hours and four minutes, and H1ghlander, which took seven hours and 14 minutes.

DARPA set up the Grand Challenge to boost research and development into autonomous ground vehicle technology for use on battlefields.

■ UK VIRUS WRITERS SENT TO PRISON

Two 20-year-olds from the UK were sentenced to prison terms for their part in a virus-writing gang. Jordan Bradley, 22, and Andrew Harvey, 23, were members of a group named the Thr34t Krew, responsible for writing the TK worm that caused "unquantifiable" damage to computers worldwide. They were jailed for three and six months respectively at Newcastle Crown Court in October.

Big Brother is in your printer

Many big-name colour laser printers embed near-invisible matrices of yellow dots into printed images, which enable the US government, and possibly agencies from other countries, to identify the individual printer that created them.

Digital rights group Electronic Frontier Foundation (EFF) said it had received confirmation from the US secret service that it used the system to track counterfeiters. The increasing quality of widely available colour laser printers has been a major concern for governments worldwide.

The precise information contained in the dots had not been decoded until recently. EFF staff technologist Seth David Schoen said: "We've found that the dots from at least one line of printers encode the date and time your document was printed, as well as the serial number of the printer."

Printers from Xerox, Canon, Epson, Dell and HP all create the dots that appear on every single page, but are viewable only with a magnifying glass under a blue light. "So far, we've only broken the code for Xerox DocuColor printers," said Schoen. "But we believe that other



models from other manufacturers include the same personally identifiable information in their tracking dots."

The discovery of this process has alarmed many civil libertarians, who are worried that there is no legal framework to prevent this information being used for sinister purposes. "Underground democracy movements that produce political or religious pamphlets and flyers, like the Russian samizdat of the 1980s, will always need the anonymity of simple paper documents, but this technology makes it easier for

governments to find dissenters," said EFF senior staff attorney Lee Tien.

"Even worse, it shows how the government and private industry make backroom deals to weaken our privacy by compromising everyday equipment like printers. The logical next question is: what other deals have been or are being made to ensure that our technology rats on us?"

The EFF (www.eff.org) has published an extensive list of the printers that it identified as including the secret dots, and those that appear not to have the system.

Super-fast WiFi on radar

A collection of 27 major WiFi vendors, including Intel, Cisco and Apple, have formed the Enhanced Wireless Consortium (EWC), in an aggressive move to speed the arrival of a new super-fast wireless specification.

The IEEE 802.11n specification promises data speeds of up to 600Mbit/s, four times the fastest rates currently achieved in WiFi networks. This would enable PC companies to sell Media Center PCs with built-in, high-speed WiFi capable of streaming HDTV in real time from room to room, for example. The proposed standard would also be backwardly compatible with today's a, b and g WiFi specifications.

The formation of the EWC is a response to the bickering between two industry groups, WWise and TGN Sync, which are lobbying the Institute of Electrical and Electronics Engineers (IEEE) to promote different versions of similar WiFi technologies as the next standard.

In July, they agreed to promote a joint specification, but this wasn't enough to head off the formation of the EWC, which is banking on having enough clout to bypass the IEEE and make its technology the *de facto* market standard.

Intel started promoting 802.11n over a year ago, and has become frustrated at the slow progress in achieving IEEE ratification. Rival technologies such as WiMax and

UWB are likely to appear on the market in the next few months. In June, Freescale showed off an HDTV wireless networking system that used UWB.

"Intel is committed to advancing the adoption of standards, and participation in the Enhanced Wireless Consortium is one way we hope to accelerate the adoption of a final IEEE 802.11n standard," said Jim Johnson, vice president and general manager of Intel's Wireless Networking Group.

"By joining with numerous other industry players, we hope to speed ratification of the standard as well as jointly develop a common guideline to deliver interoperable solutions in the interim," he added.